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CENG
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Constellation Energy EDF

September 17, 2013

U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

ATTENTION: Document Control Desk

SUBJECT: **R.E. Ginna Nuclear Power Plant**
Renewed Facility Operating License No. DPR-18
Docket No. 50-244

LER 2013-002, Plant Trip due to Generator Trip During Main Generator Reactive Power Testing

The attached Licensee Event Report (LER) 2013-002 is submitted under the provisions of NUREG-1022, Event Reporting Guidelines. There are no new commitments contained in this submittal.
Should you have any questions regarding this submittal, please contact Thomas Harding at 585-771-5219.

Sincerely,

MP/KC
Attachment: LER 2013-002

cc: NRC Regional Administrator, Region I
NRC Project Manager, Ginna
NRC Resident Inspector, Ginna

IE22
NRR

Attachment

LER 2013-002

NRC FORM 366 (10-2010) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0104 EXPIRES: 10/31/2013

Estimated burden per response to comply with this mandatory collection request: 80 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the FOIA/Privacy Section (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects.resource@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number,the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

1. FACILITY NAME	2. DOCKET NUMBER	3. PAGE
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4. TITLE Reactor Trip Due to Generator Trip During Main Generator Reactive Power Testing

5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO.	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
										05000
07	24	2013	2013	- 002	- 0	09	17	2013	FACILITY NAME	DOCKET NUMBER 05000

9. OPERATING MODE

1

10. POWER LEVEL

100%

11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR§: *(Check all that apply)*

- ☐ 20.2201(b)
- ☐ 20.2201(d)
- ☐ 20.2203(a)(1)
- ☐ 20.2203(a)(2)(i)
- ☐ 20.2203(a)(2)(ii)
- ☐ 20.2203(a)(2)(iii)
- ☐ 20.2203(a)(2)(iv)
- ☐ 20.2203(a)(2)(v)
- ☐ 20.2203(a)(2)(vi)
- ☐ 20.2203(a)(3)(i)
- ☐ 20.2203(a)(3)(ii)
- ☐ 20.2203(a)(4)
- ☐ 50.36(c)(1)(i)(A)
- ☐ 50.36(c)(1)(ii)(A)
- ☐ 50.36(c)(2)
- ☐ 50.46(a)(3)(ii)
- ☐ 50.73(a)(2)(i)(A)
- ☐ 50.73(a)(2)(i)(B)
- ☐ 50.73(a)(2)(i)(C)
- ☐ 50.73(a)(2)(ii)(A)
- ☐ 50.73(a)(2)(ii)(B)
- ☐ 50.73(a)(2)(iii)
- ☒ 50.73(a)(2)(iv)(A)
- ☐ 50.73(a)(2)(v)(A)
- ☐ 50.73(a)(2)(v)(B)
- ☐ 50.73(a)(2)(v)(C)
- ☐ 50.73(a)(2)(v)(D)
- ☐ 50.73(a)(2)(vii)
- ☐ 50.73(a)(2)(viii)(A)
- ☐ 50.73(a)(2)(viii)(B)
- ☐ 50.73(a)(2)(ix)(A)
- ☐ 50.73(a)(2)(x)
- ☐ 73.71(a)(4)
- ☐ 73.71(a)(5)
- ☐ OTHER

Specify In Abstract below or in NRC Form 366A

12. LICENSEE CONTACT FOR THIS LER

FACILITY NAME	TELEPHONE NUMBER (Include Area Code)
Thomas Harding, Licensing Director	(585) 771-5219

13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT

CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX

14. SUPPLEMENTAL REPORT EXPECTED

☐ YES *(If yes, complete 15. EXPECTED SUBMISSION DATE)* ☒ NO

15. EXPECTED SUBMISSION DATE

MONTH	DAY	YEAR

ABSTRACT *(Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)*

On July 24, 2013 at 1419, the R.E. Ginna Nuclear Power Plant (Ginna) experienced an automatic Reactor Trip from full power during Main Generator Reactive Power Testing.

The Reactor Trip was caused by a reactor protection system (RPS) actuation signal from a Turbine Trip, which was caused by a Generator Trip. All Control Rods inserted on the trip, and Auxiliary Feedwater started automatically, as expected. The cause of the generator trip was determined to be an incorrect configuration of two generator protection digital relays while implementing a modification during the 2012 refueling outage. An alarm was expected while raising voltage during reactive power testing, but due to the incorrect configuration of the relays, a trip signal was received which tripped the main generator. The protective relays' outputs were configured incorrectly to trip at the alarm setpoint.

The trip functions of the digital relays were removed, returning Ginna to the alarm indication and trip protections prior to the 2012 refueling outage.

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NARRATIVE

I. DESCRIPTION OF EVENT

A. PRE-EVENT PLANT CONDITIONS:

The reactor was in Operational Mode 1 at 100% power, 2235 psig and 574 degrees F.

B. EVENT:

On July 24, 2013 at 1419 hours R.E. Ginna experienced a Turbine and Reactor Trip, caused by a Generator Trip. The Reactor Trip was caused by a RPS actuation signal from a Turbine Trip, which was caused by a Generator Trip. All Control Rods inserted on the trip, and Auxiliary Feedwater auto started as expected. The Generator Trip was caused by generator protective relays that were incorrectly configured in the Ginna 2012 refueling outage. The protective relays' outputs were configured incorrectly to trip at the alarm setpoint

C. INOPERABLE STRUCTURES, COMPONENTS OR SYSTEMS THAT CONTRIBUTED TO THE EVENT:

None.

D. DATES AND APPROXIMATE TIMES OF MAJOR OCCURRENCES:

06/2011 Installation of Multifunction Relays with Trip functions disabled
11/2012 Trip functions of Multifunction Relays Enabled
11/2012 Plant Startup from Refueling Outage
07/24/2013 Plant trip during Reactive Power testing

E. OTHER SYSTEMS OR SECONDARY FUNCTIONS AFFECTED:

None.

F. METHOD OF DISCOVERY:

Plant Trip

G. MAJOR OPERATOR ACTION:

Operations entered plant procedures for a reactor trip and stabilized the plant in Mode 3.

H. SAFETY SYSTEM RESPONSES:

The reactor protection system operated as expected as a result of the Turbine Trip. Motor Driven and Turbine Driven auxiliary feedwater pumps started on the Anticipated Transient Without Scram (ATWS) mitigation system signal. All systems operated as expected.

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NARRATIVE

II. CAUSE OF EVENT:

The cause of the shutdown was determined to be an inadequate guidance for enabling the trip output of the generator protection relays while implementing a modification during the 2012 refueling outage. An alarm was expected while raising voltage during reactive power testing, but due to the incorrect configuration of the relays' outputs, a trip signal was received along with an alarm.

This event was entered into the site corrective action program with CR-2013-004461.

III. ANALYSIS OF THE EVENT:

This event is reportable in accordance with 10 CFR50.73, "Licensee Events Report System," under paragraph (a)(2)(iv)(A) based on actuation of the the following systems listed in paragraph (a)(2)(iv)(B): (1) Reactor Protection System (RPS), and (6) PWR Auxiliary Feedwater System.

An assessment was performed considering both the safety consequences and implications of this event with the following conclusions:

Reactor trip breakers opened as required and control rods inserted as designed. Heatup and pressurization of the Reactor Coolant System (RCS) presented no significant challenge to RCS pressure control systems and no Power Operated Relief Valve (PORV) or safety valve actuation occurred. Maximum steam generator secondary side pressures were well below the atmospheric relief valve pressure setpoint. Automatic actuation of the Motor Driven and Turbine Driven Auxiliary Feedwater pumps occurred as expected due to the ATWS mitigation system on low feedwater flow signal. All Auxiliary Feedwater pumps performed as expected and met required flow rates.

The plant transient response is bounded by the Loss of External Electrical Load transient analyzed as part of the licensing basis described in the UFSAR. Based on the above considerations, the nuclear safety consequences of this event are very low.

This event impacted NRC performance indicator IE01, Unplanned Scrams per 7000 Critical Hours. This value changed from 0 to 0.9.

Ginna returned to Mode 1 on July 28, 2013.

IV. CORRECTIVE ACTIONS:

A. ACTION TAKEN TO RETURN AFFECTED SYSTEMS TO PRE-EVENT NORMAL STATUS:

The trip function of the digital relays were removed and post maintenance testing completed.

B. ACTION TAKEN OR PLANNED TO PREVENT RECURRENCE

A review of the digital relays associated with offsite power has been completed to ensure they have been configured correctly.

Procedures for relay calibration and trip testing have been quarantined until a procedure upgrade is complete.

V. ADDITIONAL INFORMATION:

A. FAILED COMPONENT

None.

B. PREVIOUS LERS ON SIMILAR EVENTS

None.